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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,263	05/24/2001	Kazuo Tachiwama	330-237	9024

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EXAMINER

BOLDEN, ELIZABETH A

ART UNIT	PAPER NUMBER
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1755

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DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/863,263

Applicant(s)

TACHIWAMA, KAZUO

Examiner

Elizabeth A. Bolden

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 19-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-18, drawn to optical glass composition, classified in class 501, subclass 73.
- II. Claims 19-22, drawn to method of making an optical product, classified in class 65, subclass 385.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by a materially different process, such as by down drawing.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Art Crawford on 19 August 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-22 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Specification***

The abstract of the disclosure is objected to because it is more than one paragraph in length. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because no specific composition for the material is set forth. "An article characterized by physical properties alone and no specific composition is vague and indefinite". See *Ex parte Slob*, 157 USPQ 172.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-12 and 14-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Komorita et al., U.S. Patent 4,120,732.

Komorita et al. disclose an optical glass comprising in weight percent, 10-17 B<sub>2</sub>O<sub>3</sub>, 20-55 La<sub>2</sub>O<sub>3</sub>, 0.5-38 Gd<sub>2</sub>O<sub>3</sub>, 0.5-32 WO<sub>3</sub>, 0-10 ZrO<sub>2</sub>, 0-30 Ta<sub>2</sub>O<sub>5</sub>, 0-5.5 SiO<sub>2</sub>, 0-5 GeO<sub>2</sub>, 0-16 Y<sub>2</sub>O<sub>3</sub>, 0-5 Tb<sub>4</sub>O<sub>7</sub>, 0-38 Yb<sub>2</sub>O<sub>3</sub>, 0-2 TiO<sub>2</sub>, 0-31 Nb<sub>2</sub>O<sub>5</sub>, 0-3 SnO<sub>2</sub>, 0-5 of Al<sub>2</sub>O<sub>3</sub>, In<sub>2</sub>O<sub>3</sub>, and/or Bi<sub>2</sub>O<sub>3</sub>, and 0-2 ZnO. See column 1, lines 44-57. These ranges are sufficiently specific to anticipate the compositional limitations of claims 1-6, 8-12 and 14-16. See MPEP 2131.03. Moreover, Example 31 in Table 1-2 meets all the compositional limitations of claims 1, 2, 5, 9, 11, 15, and 16. Examples 4, 26, and 29 meet the compositional limitations of claims 15 and 16.

Komorita et al. further disclose that the glass has a refractive index (N<sub>d</sub>) of between 1.85 and 1.96 and an Abbe's number (v<sub>d</sub>) between 28 and 43. See column 1, lines 33-37. These ranges are sufficiently specific to anticipate the refractive index and Abbe's number ranges in claims 1, 9, and 10.

Since the composition of the reference is the same as those claimed herein it follows that the glasses of Komorita et al. would inherently have the same T<sub>g</sub> as recited in claims 1, 15, and 16. See MPEP 2112.

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Takahashi, Japanese Laid- open Patent Publication 54-90218.

In addition to the Derwent Abstract and the provided partial translation, the examiner has received an oral translation of parts of the document. It should be noted that the translation of the claim from the applicant recites "BiO<sub>2</sub> from 4 to 10 %" where the document recites SiO<sub>2</sub> from 4 to 10 %.

Takahashi discloses an optical glass comprising in weight percent, 4-10 SiO<sub>2</sub>, 5-20 B<sub>2</sub>O<sub>3</sub>, 20-50 La<sub>2</sub>O<sub>3</sub>, 2-25 WO<sub>3</sub>, 15-30 Ta<sub>2</sub>O<sub>3</sub>, 5-10 ZrO<sub>2</sub>, 5-30 Gd<sub>2</sub>O<sub>3</sub>, 0-10 Y<sub>2</sub>O<sub>3</sub>, 0-30 GeO<sub>2</sub>, 0-3 of Al<sub>2</sub>O<sub>3</sub>, 0-10 TiO<sub>2</sub>, and 0-1 Li<sub>2</sub>O. See Derwent abstract of JP 54090218A. Takahashi discloses that one or a combination of ZnO, CaO, and PbO are added from 1 to 7 weight percent. See page 105, section 8, and paragraph 4. These ranges are sufficiently specific to anticipate the compositional limitations of claims 1-18. See MPEP 2131.03. Moreover, examples 1 and 3 meet all the compositional limitations of claims 1, 2, 5, 7, 8, 15, and 16. See Table on page 105, section 7.

Takahashi further discloses that the glass has a refractive index (Nd) of between 1.84 and 1.95 and an Abbe's number (vd) between 30 and 45. See page 103, section 2, and paragraph 1. These ranges are sufficiently specific to anticipate the refractive index and Abbe's number ranges in claims 1, 9, and 10. Moreover, examples 1 and 3 meet the recited limitations for the refractive index and the Abbe's number of claim 1.

Since the composition of the reference is the same as those claimed herein it follows that, the glasses of Takahashi would inherently have the same T<sub>g</sub> as recited in claims 1, 15, and 16. See MPEP 2112.

Claims 1, 2, 5, 7-9, 11, 13-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Morey, U.S. Patent 2,150,694.

Morey discloses an optical glass comprising boric oxide, small amounts lithium or sodium oxides, silica in less than 10 weight %, and oxides of titanium, zirconium, lanthanum, tantalum, thorium, tungsten, yttrium, columbium, and hafnium. See page 3, column 1, lines 46-56, page 3, column 2, lines 3-6, and page 3, column 2, lines 7-12, respectively. These ranges are sufficiently specific to anticipate the compositional limitations of claims 1, 2, 5, 7-9, 11, 13-18. See MPEP 2131.03. Moreover, Example M meets all the compositional limitations of claims 1 and 2.

Morey further discloses that the glass has a refractive index ( $N_d$ ) greater than 1.65. See page 1, column 2, and lines 41-44. This range is sufficiently specific to anticipate the refractive index limitation recited in claims 1 and 9. Morey discloses that the refractive index for example M is 1.898 and the abbe's number is 39.6, which meet the recited limitations for those properties in claim 1. See page 3, column 1, and lines 3-15.

Since the composition of the reference is the same as those claimed herein it follows that, the glasses of Morey would inherently have the same  $T_g$  as recited in claims 1, 15, and 16. See MPEP 2112.

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Komorita, Japanese Laid- open Patent Publication 53-4023.

The Derwent information is provided for a translation of the abstract. Additionally, the examiner has received an oral translation of parts of the document.

Art Unit: 1755

Komorita discloses an optical glass comprising in weight percent, 0-10 SiO<sub>2</sub>, 9-47 B<sub>2</sub>O<sub>3</sub>, 10-60 La<sub>2</sub>O<sub>3</sub>, 0.1-25 HfO<sub>2</sub>, 0-35 WO<sub>3</sub>, 0-30 Ta<sub>2</sub>O<sub>3</sub>, 0-10 ZrO<sub>2</sub>, 0-5 Gd<sub>2</sub>O<sub>3</sub>, 0-25 Y<sub>2</sub>O<sub>3</sub>, 0-40 Yb<sub>2</sub>O<sub>3</sub>, 0-15 GeO<sub>2</sub>, 0-5 of Al<sub>2</sub>O<sub>3</sub>, 0-20 TiO<sub>2</sub>, 0-10 of one or a combination of CaO, MgO, SrO, BaO, or ZnO, 0-0.5 of one or a combination of Li<sub>2</sub>O, Na<sub>2</sub>O, or K<sub>2</sub>O, and other optional components. See Derwent abstract of JP 53004023A. These ranges are sufficiently specific to anticipate the compositional limitations of claims 1-18. See MPEP 2131.03. Moreover, example 27 meets all the compositional limitations of claims 1 and 2. See Table 1 on page 130.

Komorita further discloses that the glass has a refractive index (Nd) of between 1.70 and 2.00. See Derwent abstract. Komorita discloses that the Abbe's number is between 25-55. See page 127, column 2, and lines 1-7. These ranges are sufficiently specific to anticipate the refractive index range limitation recited in claims 1, 9, and 10. Moreover, example 27 meets the recited limitations for the refractive index and the Abbe's number of claim 1, 9, and 10.

Since the composition of the reference is the same as those claimed herein it follows that, the glasses of Komorita would inherently have the same T<sub>g</sub> as recited in claims 1, 15, and 16. See MPEP 2112.

### ***Conclusion***

The additional reference cited on the 892 have been cited as art of interest since they are cumulative to or less than the art relied upon in the rejections above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Bolden whose telephone number is 703-305-0124. The examiner can normally be reached on 8:30am to 6:00 pm with alternating Fridays off.



Art Unit: 1755

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on 703-308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EAB  
August 23, 2002

  
Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700